

REMARKS

1. Applicant thanks the Examiner for the Examiner's comments which have greatly
5 assisted Applicant in responding.

Applicant has amended Claims 1, 4-6, and 12. It should be noted that Applicant has
elected to amend said Claims solely for the purpose of expediting the patent
application process in a manner consistent with the PTO's Patent Business Goals, 65
10 Fed. Reg. 54603 (9/8/00). In making this amendment, Applicant has not and does not
in any way narrow the scope of protection to which Applicant considers the invention
herein to be entitled and does not concede, in any way, that the subject matter of such
claim was in fact taught or disclosed by the cited prior art. Rather, Applicant reserves
Applicant's right to pursue such protection at a later point in time and merely seeks to
15 pursue protection for the subject matter presented in this submission.

2. 35 U.S.C. §112. The Examiner has rejected Claim 5 under 35 U.S.C. §112
because of insufficient antecedent basis. Applicant has amended Claims 4, 5, and 6
to correct the antecedent basis. Therefore, Applicant respectfully requests that the
20 Examiner withdraw the rejection under 35 U.S.C. §112.

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3. 35 U.S.C. §102(e). The Examiner has rejected Claims 1, 4, 9, 12, 15, and 22
under 35 U.S.C. §102(e) as being anticipated over Ansari (U.S. Pat. No. 6,473,897).
25 Applicant respectfully disagrees.

Claims 1 and 12:

Claims 1 and 12 have been amended to clarify the invention and appear as follows:
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1. An apparatus for generating computer assembly code, comprising:

an abstract routine generator for receiving a data stream comprising a multimedia routine and for outputting a generic abstract representation thereof during runtime; and

5 a translator for said abstract routine generator for receiving said abstract representation and for outputting processor specific code during said runtime for processing multimedia input data during said runtime.

12. A method for generating assembly code, comprising:

10 providing an abstract routine generator for generating a generic abstract representation of an input stream during runtime, said input stream comprising a multimedia routine; and

providing a translator for receiving said abstract representation from said abstract routine generator and for outputting processor-specific code during said runtime for processing multimedia input data during said runtime.

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In particular, Ansari does not teach or disclose a system that provides an abstract routine generator for receiving a data stream comprising a multimedia routine and for outputting a generic abstract representation thereof during runtime and a translator for said abstract routine generator for receiving said abstract representation and for
20 outputting processor specific code during said runtime for processing multimedia input data during said runtime as claimed in the invention. Ansari does not contemplate such a system.

25 Ansari is a classical compiler that compiles a program into object code to be eventually run on a target processor (abstract, col. 1, lines 15-17, col. 2, lines 11-15, col. 4, line 1-col. 6, line 3). The claimed invention, on the other hand, creates a generic abstract representation during the program runtime, the generic abstract representation is then translated into processor specific code during the program runtime. The processor specific code is for processing multimedia input data during
30 the same program runtime. The invention's program dynamically creates code for processing multimedia input data when the program is executed.

The claimed invention cannot be compared to Ansari because Ansari is not real-time. Ansari cannot create processor specific code during runtime for processing multimedia input data during said runtime. Ansari's resulting object code must be loaded onto a target machine and then executed while the claimed invention creates its processor
5 specific code on the fly for the processor that it is running on and the processor executes the code and processes multimedia input data. All of this occurs in real-time. This allows the claimed invention to be loaded onto any machine because it will generate processor specific code for the host machine at runtime.

10 Ansari therefore does not teach every aspect of the invention either explicitly or impliedly.

Claims 1 and 12 are allowable. Claims 4, 9, and 15, 22 are dependent upon Claims 1 and 12, respectively. Therefore, Applicant respectfully requests that the Examiner
15 withdraw the rejection under 35 U.S.C. §102(e).

4. 35 U.S.C. §103(a). The Examiner has rejected Claims 2 and 13 under 35 U.S.C. §103(a) as being unpatentable over Ansari (U.S. Pat. No. 6,473,897).

20 The rejection of Claims 2 and 13 under 35 U.S.C. §103(a) is deemed moot in view of ~~Applicant's comments concerning Claims 1 and 12 above. Claims 2 and 13 are~~
dependent upon Claims 1 and 12, respectively, which are in allowable condition. Therefore, Applicant respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. §103(a).

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5. 35 U.S.C. §103(a). The Examiner has rejected Claims 3, 7, 8, 14, 16, and 17 under 35 U.S.C. §103(a) as being unpatentable over Ansari (U.S. Pat. No. 6,473,897) in view of Benson (U.S. Pat. No. 5,307,492).

30 The rejection of Claims 3, 7, 8, 14, 16, and 17 under 35 U.S.C. §103(a) is deemed moot in view of Applicant's comments concerning Claims 1 and 12 above. Claims 3, 7, 8, and 14, 16, 17 are dependent upon Claims 1 and 12, respectively, which are in

allowable condition. Therefore, Applicant respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. §103(a).

6. 35 U.S.C. §103(a). The Examiner has rejected Claims 5, 6, 18, and 19 under
5 35 U.S.C. §103(a) as being unpatentable over Ansari (U.S. Pat. No. 6,473,897) in
view of Gelissen (U.S. Pat. No. 5,854,927).

The rejection of Claims 5, 6, 18, and 19 under 35 U.S.C. §103(a) is deemed moot in
view of Applicant's comments concerning Claims 1 and 12 above. Claims 5, 6, and
10 18, 19 are dependent upon Claims 1 and 12, respectively, which are in allowable
condition. Therefore, Applicant respectfully requests that the Examiner withdraw the
rejection under 35 U.S.C. §103(a).

7. 35 U.S.C. §103(a). The Examiner has rejected Claims 10 and 20 under 35
15 U.S.C. §103(a) as being unpatentable over Ansari (U.S. Pat. No. 6,473,897) in view of
Abdallah (U.S. Pat. No. 6,502,115).

The rejection of Claims 10 and 20 under 35 U.S.C. §103(a) is deemed moot in view of
Applicant's comments concerning Claims 1 and 12 above. Claims 10 and 20 are
20 dependent upon Claims 1 and 12, respectively, which are in allowable condition.
~~Therefore, Applicant respectfully requests that the Examiner withdraw the rejection~~
under 35 U.S.C. §103(a).

8. 35 U.S.C. §103(a). The Examiner has rejected Claims 11 and 21 under 35
25 U.S.C. §103(a) as being unpatentable over Ansari (U.S. Pat. No. 6,473,897) in view of
Okuda (U.S. Pat. No. 6,493,467).

The rejection of Claims 11 and 21 under 35 U.S.C. §103(a) is deemed moot in view of
Applicant's comments concerning Claims 1 and 12 above. Claims 11 and 21 are
30 dependent upon Claims 1 and 12, respectively, which are in allowable condition.
Therefore, Applicant respectfully requests that the Examiner withdraw the rejection
under 35 U.S.C. §103(a).

CONCLUSION

5 Based on the foregoing, Applicant considers the present invention to be distinguished
from the art of record. Accordingly, Applicant earnestly solicits the Examiner's
withdrawal of the rejections raised in the above referenced Office Action, such that a
Notice of Allowance is forwarded to Applicant, and the present application is therefore
allowed to issue as a United States patent.

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Respectfully Submitted,



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Version with markings to show changes made

In The Claims

5 Please amend Claims 1, 4-6, and 12 as follows (Marked copy):

1. (amended) An apparatus for generating computer assembly code, comprising:
an abstract routine generator for receiving a data stream comprising a
multimedia routine and for outputting a generic abstract representation thereof during
10 runtime; and

a translator for said abstract routine generator for receiving said abstract
representation and for outputting processor specific code during said runtime for
processing multimedia input data during said runtime.

15 4. (amended) The apparatus of Claim 1 wherein said multimedia input data
comprise SIMD input data.

5. (amended) The apparatus of Claim 1, wherein said multimedia input data
comprise image input data.

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~~6. (amended) The apparatus of Claim 1, wherein said multimedia input data
comprise audio input data.~~

12. (amended) A method for generating assembly code, comprising:
25 providing an abstract routine generator for generating a generic abstract
representation of an input stream during runtime, [and] said input stream comprising a
multimedia [a] routine; and

providing a translator for receiving said abstract representation from said
abstract routine generator and for outputting processor-specific code during said
30 runtime for processing multimedia input data during said runtime.